

- 4) Run the program by typing OZ "Return". (The next time you boot the working disk, the AUTOEXEC.BAT batch file will run the program automatically.) The program will display a title page and request that you press SPACE to begin. Press the SPACE bar. You will now see a 'Help' page listing the key functions of the program.

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KEY FUNCTIONS

F1 -- Copy disk file to disk page \
F2 -- Copy disk page to display pages > Send disk file to organ
F3 -- Send display pages to organ /

F4 -- Organ data to display pages \
F5 -- Copy display pages to disk page > Save organ data to disk
F6 -- Copy disk page to disk file /

F7 -- Copy voice or rhythm from disk page to appropriate display page
F8 -- Rename voice or rhythm on selected display page
F9 -- Change default drive / update filenames
F10 - Display/modify voice parameters

(Press ESC to abort a function.)

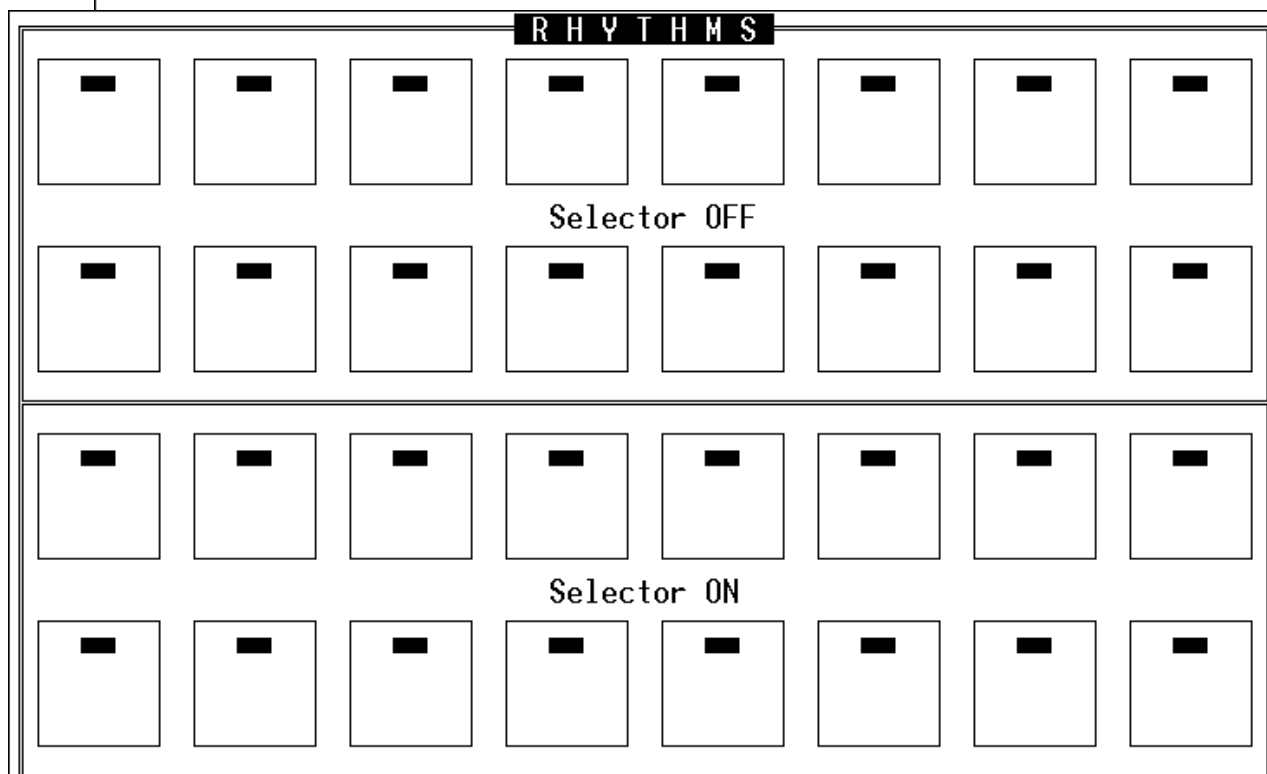
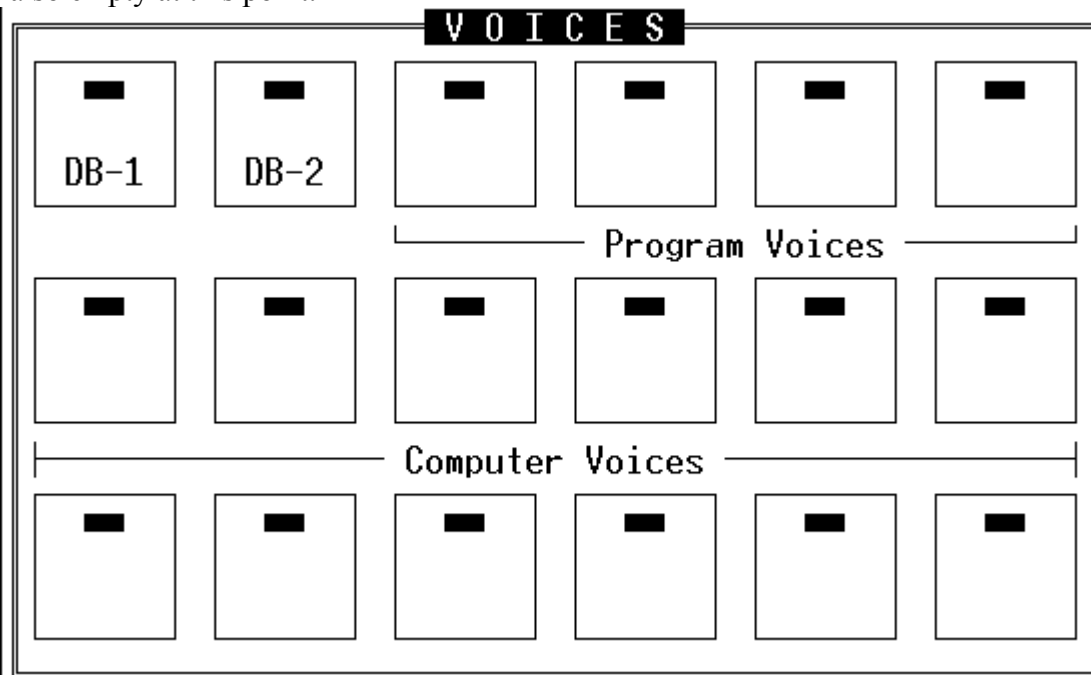
The PgUp and PgDn keys select between disk, voice and rhythm display pages.
The Home key selects this page.
The End key exits to DOS.
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In addition to this Help page, which you can always return to by pressing the Home key, there are three sections, one labelled 'Disk Files', another labelled 'Voices', and the third labelled 'Rhythms'. Since there are no data files stored on the disk yet, the Disk Files section is blank except for a message to that effect.

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DISK FILES (D:)
VOICES
RHYTHMS
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The other two pages are called the Voice Display page and the Rhythms Display page. They are used to display the Voices and the Rhythms to be transferred to the organ, or received from the organ. Press the PgUp key two more times to see what they look like. They are also empty at this point.



- 5) Prepare or obtain an interconnecting cable configured as shown in the appendix. You will need this cable in some of the following steps.

NOTE: In the following steps you will be transferring your data tapes from cassette recorder to the organ, then from the organ to the computer, one at a time, where they will be saved on your working disk.

- 6) Use your cassette recorder to load one of your data tapes into the organ in the usual manner. Refer to the Wersi User's Guide if necessary.
- 7) Disconnect the cassette recorder, and connect the computer to the organ. If the computer has two serial ports, connect the cable to the one labelled COM1.
- 8) Transfer the data from the organ to a disk file as follows:

NOTE: The organ must be set to 9600 baud. Press 'Compute, W, Compute' on the organ. After doing so, you should see a changing pattern after the instruction. This indicates that data is being received.

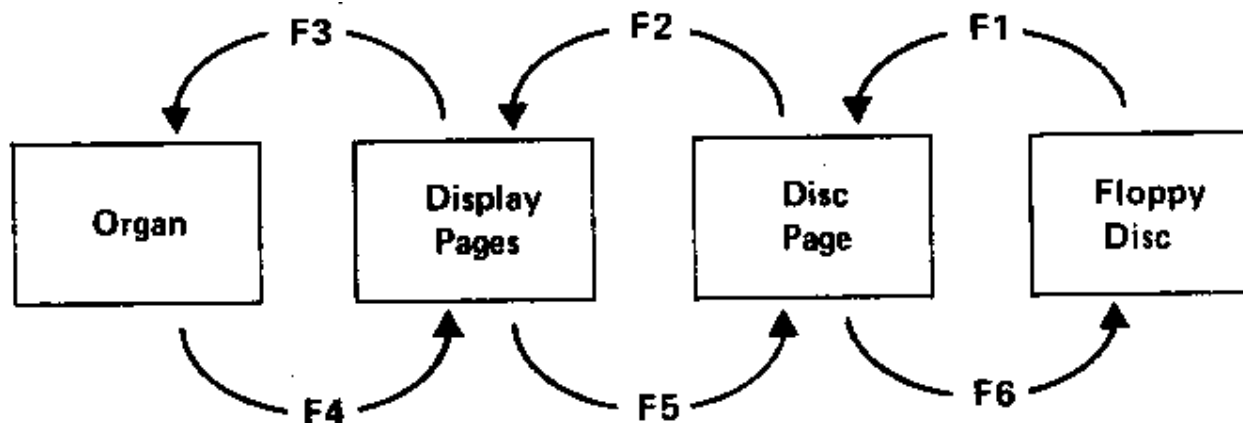
- 8a) Press F4 on the computer. You will be prompted to press 'Interface, W, Compute' on the organ. After doing so, you should see a changing pattern after the instruction. This indicates that data is being received.
- 8b) When the message 'Data Received' appears, you'll find that the Voice Display and Rhythm Display pages now have their buttons labelled! Now press F5 on the computer. This will transfer the names from the Voice and Rhythm Display pages to the Disk page. Notice that there is a box around the Program voices on the disk page. We'll see why later.
- 8c) The last step is to press F6. You'll be asked for a file name. You'll probably want to use the same name that was on the data cassette, (or an abbreviation of it, as a maximum of 8 characters is allowed. In a few seconds you'll see that the data has been written to a disk file, and the name of that file, with an .ORG extension appears in the 'Data Files' section of the Disk page.
- 8d) Remove the computer cable from the organ, reconnect the cassette recorder, insert another data cassette, and return to Step 6 until all of your data tapes have been transferred to disk.

Now you're ready to have some fun!

USING THE PROGRAM

The functions are presented below in a learn-by-doing format. If you try each function as it is described, you will feel comfortable using the program after your first time through.

Note: The bottom line of the screen is used to display prompts, comments and error messages. Some of these will remain on the screen until you do what they ask you to, others will disappear after a few seconds, or upon the pressing of another key. Error messages will be accompanied by a 'beep'.



The main concept to keep in mind is that the Disk page (the one that shows the disk files) is used to transfer files to and from the disk, and the Display pages (the ones with the Voice and Rhythm buttons) are used to transfer files to and from the organ. As indicated on the Help page (press Home), the combination of F1, F2 and F3, in that order, will transfer a file from disk to the organ, while in a similar manner; F4, F5 and F6 will transfer data from the organ to a disk file.

OK, here goes! Let's start from scratch by rebooting the computer. If you copied the AUTOEXEC.BAT file, the program will be loaded and run automatically. Otherwise you can run it by typing 'OZ' (my abbreviation for Organize). The title page appears. Press the SPACE bar.

Study the listing of key functions for a moment. If you forget any of them at any time, just press the Home key. Remember 'Home for Help'. Now press the PgUp key. The Disk page appears. Let's select a file from those appearing at the top of the screen. Press F1. The first name is highlighted. By using the arrow keys you can select any name. To actually load that file into the computer,

D I S K F I L E S (A:)				
BIG_BAND.ORG	TOMWHITE.ORG	XMAS.ORG	SYMPHONY.ORG	THEATER1.ORG
THEATER2.ORG	WESTERN.ORG	RIC_USA1.ORG	USA_2.ORG	BIG_BND3.ORG
WUNDER.ORG	STAND_2.ORG	STAND_3.ORG	LITURG.ORG	SWING2.ORG
CONTEMP.ORG				

V O I C E S		R H Y T H M S			

D I S K F I L E S (A:)				
BIG_BAND.ORG	TOMWHITE.ORG	XMAS.ORG	SYMPHONY.ORG	THEATER1.ORG
THEATER2.ORG	WESTERN.ORG	RIC_USA1.ORG	USA_2.ORG	BIG_BND3.ORG
WUNDER.ORG	STAND_2.ORG	STAND_3.ORG	LITURG.ORG	SWING2.ORG
CONTEMP.ORG				

V O I C E S		R H Y T H M S			
DB2-PC	J2/GT	DISCO1	RUMBA	DISCO2	BOSSA
A-SUIT	D-BAR	DISCO3	CALYPS	LDISCO	BAJEN
D-REED	HARP	BEAT	CHACHA	FUNK	BEGUIN
MANDOL	WHISTL	ROCK1	SAMBA	ROCK2	MAMBO
M-TRUM	HAWAIB	REGGAE	SLROCK	REGGAE	BALLAD
BB TRU	MARIMB	TWIST1	RK/RL	TWIST2	SHUFFL
N-SAX	D-FIX	TANGO	SWING	MAR6/8	FOX
TROMB	KRG85	MARCH1	WALTZ	MARCH2	JZWALZ

press SPACE. After a couple seconds, the page will fill with the names of the voices and rhythms from the file you just loaded. (If you later forget which file you loaded, press F1 - the name is highlighted again - then press the ESC key to abort the function.)

If you press PgUp twice, you'll see that the buttons are still empty.

Our next step is to transfer the data from the Disk page to the Voice and Rhythm Display pages. We do this by pressing F2. Do so now.

V O I C E S

<input type="checkbox"/> DB-1	<input type="checkbox"/> DB-2	<input type="checkbox"/> DB-prc	<input type="checkbox"/> DB-2CL	<input type="checkbox"/> DB-2SX	<input type="checkbox"/> DB-1PC
Program Voices					
<input type="checkbox"/> DIXI-T	<input type="checkbox"/> SAXOPH	<input type="checkbox"/> N-GUIT	<input type="checkbox"/> KOBOLD	<input type="checkbox"/> LASER	<input type="checkbox"/> OKTAVE
Computer Voices					
<input type="checkbox"/> BB TRU	<input type="checkbox"/> MANDOL	<input type="checkbox"/> HAWAII	<input type="checkbox"/> WHISTL	<input type="checkbox"/> STEEL	<input type="checkbox"/> BSTUTI

R H Y T H M S

<input type="checkbox"/> DISC01	<input type="checkbox"/> BLUGR1	<input type="checkbox"/> DIXIE1	<input type="checkbox"/> SWING1	<input type="checkbox"/> Samba	<input type="checkbox"/> SCHLU	<input type="checkbox"/> March1	<input type="checkbox"/> WALTZ1
Selector OFF							
<input type="checkbox"/> DISC02	<input type="checkbox"/> SQRDNC	<input type="checkbox"/> DIXIE2	<input type="checkbox"/> SWING2	<input type="checkbox"/> Tango	<input type="checkbox"/> BREAK	<input type="checkbox"/> March2	<input type="checkbox"/> Waltz2
Selector ON							
<input type="checkbox"/> ROCK1	<input type="checkbox"/> KRAMER	<input type="checkbox"/> DIXIE3	<input type="checkbox"/> SWING3	<input type="checkbox"/> Twist1	<input type="checkbox"/> Shuf2	<input type="checkbox"/> MARSC3	<input type="checkbox"/> WALTZ3
<input type="checkbox"/> ROCK2	<input type="checkbox"/> COWBOY	<input type="checkbox"/> DIXIE4	<input type="checkbox"/> SWING4	<input type="checkbox"/> FOX 3	<input type="checkbox"/> Rumba	<input type="checkbox"/> Mar6/8	<input type="checkbox"/> WALTZ4

Now that the buttons are named, you can transfer the data to the organ by pressing F3. Remember that the organ must be set for 9600 baud (Compute, W, Compute). The program tells you to press 'Interface, W-E-R-S-I, Compute' on the organ, then SPACE on the computer. After you press

SPACE, the program tells you that data is being sent, and after about 18 seconds, that the transfer is complete. Watch the display screen on the organ. When the information in the message block stops running the transfer is complete.

You've just transferred data from a disk file to the organ as easy as F1, F2, F3! And you even got the chance to see the names of the voices and rhythms contained in the file.

Maybe you would have liked to change some of the voice and/or rhythm names before you sent the data on to the organ. You can, of course, change the names using the organ keys and code programming, but it is easier to use the program. You've already sent the data to the organ, but since the data is still in the computer, we can change one or more of the names and just send it again!

Select one of the Display pages - the Voice Display page if you want to change the name of a voice, the Rhythm Display page if you want to change the name of a rhythm. (Use PgUp or PgDn to make your selection.) Now press F8. The first button on the page begins to blink." To select the button whose name you want to change, use the arrow keys. Next press SPACE. You are prompted for a new name. Enter up to six characters, and press return. You'll see the new name appear in the button, which stops blinking. Change a few other names if you like. Press F3 if you want to send the data to the organ again.

'The Drawbar buttons on the voice Display page may not be selected, since their functions are fixed. That's why they are shown dimmer than the other buttons.'

If you like to make up your own voices and rhythm patterns using code programming and the programming functions of the rhythm unit, you'll want to save your creations to a disk file. This is as easy as F4, F5, F6! You have already used this combination when you made up your working disk, but let's try it once more. (If you have the new AMS update, change banks (or levels, "W", "E", "R" or "S") so that you can see the data in the computer replaced with different voice and rhythm names.)

Press F4. The program tells you to press 'Interface, W, Compute' on the organ. After doing so, you'll see the changing character on the bottom line of screen to indicate that the data is being received. When the transfer is complete, the program will tell you so, and the voice and rhythm buttons will fill up with new names.

Now press F5. This transfers the data from the Voice and Rhythm Display pages to the Disk page, and the Disk page will appear. Now press F6. Type in a new filename and press return. Done!

You may have noticed the letter and colon in parentheses in the heading for the Disk page. This identifies the disk drive that was currently selected when you ran this program. The program will normally look for organ data files on this drive, and save new files to it. To select a different default drive, press F9, and respond to the prompt with the letter of the desired drive.

You can also use this function to update the list of data files if you put a different data disk in the current drive. Just trade disks (the new disk must have been formatted), press F9, and respond with the same letter you see in the heading.

Now for the best part. If you would like to pick individual voices and rhythms from among all the data files on your disk(s), and combine them into custom combinations, you can easily do so using the F7 key. Press F7. The Disk page appears, and the first Program Voice is highlighted. Use the arrow keys to select any voice or rhythm name on the page, and then press SPACE. Depending on whether you chose a voice or a rhythm, the appropriate Display page will appear, with the first button blinking.

Now use the arrow keys to select which button you want to copy the voice or rhythm to, and press SPACE. That's all there is to it. You can go back to the Disk page, load a different disk file with F1, pick and copy voices and rhythms from it using F7, and repeat the process until you have just the combination you want. Then rename any buttons you'd like to with F8, and either send the data to the organ with F3, or save it as a new disk file with F5 and F6, or do both!

That pretty well covers the first nine function keys, F1 through F9. Those functions accomplish the original goal of the program - the ability to organize your voices and rhythms just the way you want them in a quick and logical manner. But there is one function key left over - F10. Press it, and the voice display will appear, with Program Voice N1 blinking. Use the arrow keys to select a voice, and press SPACE.

V O I C E S						PARAMETERS
DB-1	DB-2	DB-prc	DB-2CL	DB-2SX	DB-1PC	Siz/Fmt: 16' / Track
Program Voices						Route 1: Normal
DIXI-T	SAXOPH	N-GUIT	KOBOLD	LASER	OKTAVE	WV 1: Off
Computer Voices						Route 2: Normal
BB TRU	MANDOL	HAWAII	WHISTL	STEEL	BSTUTI	WV 2: Off
VCF Attack			VCF Release			VCF 1: Off
Freq :			Freq :			Route 2: Normal
Range: -...0...+			Range: -...0...+			WV 2: Off
Time :			Time :			VCF 2: Off
Make changes with arrow keys, then press SPACE.						Inv Brt: Off Off

You now have access to all of the parameters affecting that voice! Not only can you view the parameters, which is useful in itself, but you can change them. Notice that the parameters Siz/Fmt (equivalent pipe length /formant type) are highlighted in the top right corner of the screen. You can

use the up and down arrow keys to select the parameters, and the left and right arrow keys to make the changes. Try it!

Press the down arrow until you reach the VCF Attack / VCF Release section. These are values that before now you could only change using 'code programming', and only by copying them from another voice. Now you have full control over them. The 'Freq' value is the starting frequency of the VCF for the attack or release part of the cycle. The 'Range' value can be positive (+) for an upward sweep, or negative (-) for a downward sweep. The 'Time' value determines the duration of the sweep.

Use the left and right arrow keys to move the pointers. Each dot represents a change of 16 values. To make finer adjustments, hold the 'Ctrl' key down while pressing the arrow keys.

While experimenting with parameters, you might like to hear the results of the changes you make without having to send the whole data file to the organ with F3 each time. This can be done! Note that if you press the ESCape key during any of the functions, that function will be aborted. The same is true for F10. If you press ESCape, any changes you made will be ignored. But if you press SPACE, the changes will not only be saved in the Display page data, but the parameter data for the voice you just changed will be sent to the organ. This only takes a fraction of a second. But there are several things to be aware of.

- 1) The organ must be ready to receive the data before you press SPACE, (Press Interface, W-E-R-S-I, Compute.)
- 2) After sending the data, you will not hear the change until you press the corresponding voice button on the organ, even if it was already lighted.
- 3) If you use this feature, you MUST press "Interface", "I", "Compute" just before you turn the organ off or reset it. This causes the organ to calculate a new 'checksum', which is used by the organ's diagnostics. If you forget to do this, all the voice data will be erased the next time you turn the organ on or reset it, and the organ will display the 'VOICE-RAM-ERROR' message. Note that this warning applies ONLY if you use F10 to send data to the organ.

If you want to save your parameter changes to disk, remember to press F5 to copy the Display page data to the Disk page before you press F6.

You should now have a good feeling for the way the program operates. When you are finished, press END to return to the operating system. You'll be asked if you're sure that that's what you want to do. To prevent you from exiting accidentally, you must press 'Y', or you will remain in the program.

All functions may be aborted at any point by pressing the ESC key.

MISCELLANEOUS COMMENTS

You cannot use the F7 key to copy a program voice to a computer voice. An error message will be displayed if you attempt to. The box around the Program Voices on the Disk page is a reminder. The reason this cannot be done is that it would require all the Amplitude, Wave, and Frequency tables for all of the permanent organ voices to be accessible to the program, which would increase its size significantly. Also remember that Program Voices may be based on Computer Voice parameters. Therefore if you happen to use F7 to change a Computer Voice on which a Program Voice was based, that Program Voice may change characteristics. This is normal, and is not due to a bug in this program!

You will find that some of your data cassettes cause the names of their voices and/or rhythms to be displayed as a combination of upper and lower case. This is unfortunate, since when loaded into Wersivox, the lower case letters appear as graphics characters. The ORGANizer only permits names to be entered with the F8 key as upper case - lower case is changed to upper. This presents a more pleasing display, and represents what will be displayed on the organ, since its display is only capable of uppercase.

When renaming buttons, if a voice name is less than six characters long, you may wish to precede it with a space to separate it from the rhythm name when it is displayed on the organ.

You cannot copy individual voices or rhythms using F7 until you have first transferred data to the Display pages, either from the organ using F4, or from a disk file using F1, F2. An error message will appear if you try.

When using F10, note that the parameters on lines 2 through 7 are related. Some combinations are not valid, and the program will prevent you from selecting those combinations. You have noticed the same thing on the organ - for example, pressing Bright 1 may turn on Bright 2. Therefore:

If you select Bass routing (super-deemphasis) on either channel, WV and VCF for that channel are forced off.

If WV and/or VCF is turned on on both channels, then changing between Normal and Bright routing on one channel will change the other channel as well.

The range of values represented in the VCF Attack/Release section (F101), are approximately as follows:

Frequency:	Minimum = 220 Hz., Maximum = 7000 Hz.
Time:	Minimum = 25 mS., Maximum = 1.5 S.
Range:	Not known, but some combinations are not achievable!